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Thomas C Webster
Blakely Sokoloff Taylor & Zafman LLP
12400 Wilshire Boulevard Seventh Floor
Los Angeles, CA 90025-1026

EXAMINER	
MANNING, JOHN	
ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/654,317	NICHOLS, JAMES	
	Examiner	Art Unit	
	John Manning	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5&6
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 5-10, 12, and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al. (US Pat No 6,014,693).

In regard to claim 1, the Ito et al. reference discloses a system for delivering video data with a variable transfer rate and buffering so as to ensure the continuity of the data received by the "multimedia node" or client. The video data index 13 is the database that contains the multimedia content bitrate templates. "The video data index 13 is video data index information for describing parts which are selected from among the compressed video data 12 and are delivered actually, in order for the video server 1 to adjust the transfer bit rate at which the video data 12 are transmitted to the client 2 and deliver the video data without loss of the consistency in the contents of the video data. Furthermore, reference numeral 14 denotes a video data assembler for extracting data in order to adjust the transfer bit rate from the video data 12 using the video data index 13 while maintaining the consistency in the contents of the video data, and for reassembling the extracted data to create video data to be transmitted at a transfer bit rate which can be different from the transfer bit rate of the original video data 12" (Col 5, Lines 29-44).

In regard to claim 2, when the user inputs a request to view multimedia, the system refers to the video data index 13, to determine the proper bit rate. The "video index information defines a plurality of settings for the transfer bit rate of video data and indicates which data included in the original video data the video server should transfer to the client when setting the transfer bit rate to one of the plurality of settings. Furthermore, the video data assembler extracts data from the original video data by referring to the video data index information so as to set the transfer bit rate to one of the plurality of settings" (Col 3, Lines 12-20). It is inherent that the server uses identification data to identify the proper "template".

In regard to claim 5, the video data index 13 is located on a server remote from the client equipment (Figures 2, 5, and 7-8).

In regard to claim 6, the system comprises an input buffer at the "node" so as to account for changes in the transfer bit rate such as a "spike". "Reference numeral 117 denotes a network load sensor for detecting a load imposed on a network 103, and 121 denotes a precharge buffer, which is a component of the client 102, for absorbing changes in the transfer bit rate of video data delivered by the video server 101 so as to prevent video data transferring services provided by the video server 101 from being interrupted." (Col 9, Lines 36-43).

In regard to claim 7, when "the transfer bit rate is changed, in step F47, the video data assembler 14, in step F49, extracts data to be transferred at a transfer bit rate which is increased from the current transfer bit rate by one level in accordance with the video data index so as to increase the current bit rate and reassembles the extracted

data to create video data. Then, the video data delivery unit 15 delivers the video data" (Col 7, Lines 5-11). And the buffer 121 absorbs the change "in the transfer bit rate of video data delivered by the video server 101 so as to prevent video data transferring services provided by the video server 101 from being interrupted." (Col 9, Lines 39-43).

In regard to claim 8, "The video server 1 delivers video data to the client 2 in response to a request of the client 2. The client 2 receives and replays the video data delivered thereto by the video server 1. In addition to the case where the client 2 receives video data from the video server 1, there may be cases where the client 2 receives or delivers data other than video data from or to another client" (Col 7, Lines 5-11). There is an original or first bit rate, and a plurality of bit rate settings. "The video server 1 analyzes the original video data 12 to create the video data index 13 when registering the video data 12 in the video server. As shown in FIG. 3, the video data index defines a plurality of settings for the transfer bit rate of video data, an original bit rate, a 1st bit rate, a 2nd bit rate, . . . , and a nth bit rate, and indicates which data included in the original video data 12 the video server 1 should transfer to the client 2 when setting the transfer bit rate to one of the plurality of settings" (Col 6, Lines 1-8).

In regard to claim 9, "In FIG. 2, reference numeral 11 denotes a video data database including the video data 12 and the video data index 13. The video data 12 are digital video data which are compressed by using a compression method such as MPEG1 and are to be delivered by the video server 1" (Col 5, Lines 24-29).

In regard to claim 10, when the user inputs a request to view multimedia, the system refers to the video data index 13, to determine the proper bit rate. The "video

index information defines a plurality of settings for the transfer bit rate of video data and indicates which data included in the original video data the video server should transfer to the client when setting the transfer bit rate to one of the plurality of settings. Furthermore, the video data assembler extracts data from the original video data by referring to the video data index information so as to set the transfer bit rate to one of the plurality of settings" (Col 3, Lines 12-20). It is inherent that the server uses identification data to identify the proper "template".

In regard to claim 12, "In FIG. 5, the client 2 outputs a request for transfer of video data to the video server 1. When the video server receives the transfer request from the client, the video server delivers a constant amount of data within a certain time in accordance with the transfer bit rate of video data so as to transfer the video data requested by the client through the video data delivering unit 15, in steps F61 and F62. The video server, in step F63, starts to measure a load L_n imposed on the network at constant intervals T_1 by means of the network load sensor 17 just after transfers of video data are started. Then, the video server compares a measured value L_n of the network load to a reference value L_1, which is the maximum of the network load that cannot be exceeded in order to maintain the current transfer bit rate" (Col 7, Lines 44-57). The bit rate is adjusted in response to the load on the network. Therefore, the bit rate is adjusted when another client or node request video data.

In regard to claim 14, the system comprises an input buffer at the "node" so as to account for changes in the transfer bit rate such as a "spike". "Reference numeral 117 denotes a network load sensor for detecting a load imposed on a network 103, and 121

denotes a precharge buffer, which is a component of the client 102, for absorbing changes in the transfer bit rate of video data delivered by the video server 101 so as to prevent video data transferring services provided by the video server 101 from being interrupted." (Col 9, Lines 36-43).

In regard to claim 15, "In FIG. 5, the client 2 outputs a request for transfer of video data to the video server 1. When the video server receives the transfer request from the client, the video server delivers a constant amount of data within a certain time in accordance with the transfer bit rate of video data so as to transfer the video data requested by the client through the video data delivering unit 15, in steps F61 and F62. The video server, in step F63, starts to measure a load L_n imposed on the network at constant intervals T_1 by means of the network load sensor 17 just after transfers of video data are started. Then, the video server compares a measured value L_n of the network load to a reference value L_1, which is the maximum of the network load that cannot be exceeded in order to maintain the current transfer bit rate" (Col 7, Lines 44-57). The bit rate is adjusted in response to the load on the network. Therefor, the bit rate is adjusted when another client or node request video data. Also, there is an input buffer at the "node" so as to account for changes in the transfer bit rate such as a "spike". "Reference numeral 117 denotes a network load sensor for detecting a load imposed on a network 103, and 121 denotes a precharge buffer, which is a component of the client 102, for absorbing changes in the transfer bit rate of video data delivered by the video server 101 so as to prevent video data transferring services provided by the video server 101 from being interrupted." (Col 9, Lines 36-43).

In regard to claims 16 and 17, the bit rate to the buffer is maintained until the load on the network is increased. "When the video server 101 receives the transfer request from the client, the video server transfers the video data requested by the client 102 to the client. The client 102 stores the video data delivered by the video server in the precharge buffer 121, and then starts to replay the video data. After that, the client continues to store video data received in the precharge buffer and read the video data to be replayed from the precharge buffer. Thus, even though transfer of video data from the video server is delayed, the client can maintain the continuity in video replay by absorbing changes in the transfer bit rate of video data by utilizing video data stored in the precharge buffer. The network load sensor 117 starts to measure a load L_n imposed on the network at constant intervals T_1 just after transfers of video data are started. Then, the network load sensor 117 compares the measured network load L.sub.n to a reference value L_d. If the measured value L_n exceeds the reference value L_d, the client 102 sends a request to reduce the transfer bit rate to the video server 101. When the video server 101 receives the request to change the bit rate, the video data assembler 114 extracts pictures from the video data 112 in accordance with the video data index 113, modifies the header information, and reassembles the extracted data to create video data to be transferred at a bit rate which is reduced from the previous bit rate by one level from the video data 12. Then, the video server delivers the video data" (Col 9, Lines 45-67; Col 10, Lines 1-11).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3-4, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al.

In regard to claims 3, 4 and 11 the Ito et al. reference discloses a system for delivering video data with a variable transfer rate and buffering so as to ensure the continuity of the data received by the "multimedia node" or client. The reference fails to explicitly disclose the use of serial numbers or checksums for identification of multimedia content as claimed. However, the examiner gives OFFICIAL NOTICE that it is notoriously well known in the art to use serial numbers or checksums for identification so as to allow multimedia content to be identified. Consequently, it would have been clearly obvious to one of ordinary skill in the art to implement the Ito et al. reference with serial numbers identification of multimedia content for so as to allow multimedia content to be identified.

In regard to claim 13 the Ito et al. reference discloses a system for delivering video data with a variable transfer rate and buffering so as to ensure the continuity of the data received by the "multimedia node" or client. The reference fails to explicitly disclose the use of a digital video disk as the multimedia content as claimed. However, the examiner gives OFFICIAL NOTICE that it is notoriously well known in the art to use

digital video disk as the multimedia content so as to provide a storage medium for the multimedia data. Consequently, it would have been clearly obvious to one of ordinary skill in the art to implement the Ito et al. reference with the use of a digital video disk as the multimedia content so as to provide a storage medium for the multimedia data.

5. Claims 18-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. in view of Humpleman et al. (US Pat No 6,603,488).

In regard to claim 18, the Ito et al. reference discloses a system for delivering video data with a variable transfer rate and buffering so as to ensure the continuity of the data received by the "multimedia node" or client. The multimedia data has original or first bit rate associated with it, and a plurality of bit rate settings. "The video server 1 analyzes the original video data 12 to create the video data index 13 when registering the video data 12 in the video server. As shown in FIG. 3, the video data index defines a plurality of settings for the transfer bit rate of video data, an original bit rate, a 1st bit rate, a 2nd bit rate, . . . , and a nth bit rate, and indicates which data included in the original video data 12 the video server 1 should transfer to the client 2 when setting the transfer bit rate to one of the plurality of settings" (Col 6, Lines 1-8). The reference fails to explicitly disclose the use of this system in a home network. The Humpleman et al. reference teaches the use of a home network for connecting different types of household appliances so as to provide convenient means of control with client-server architecture (Col 2, Lines 33-67; Col 3, Lines 1-25). Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Humpleman et al. reference to incorporate the system in a home network.

In regard to claim 19, with respect to the Ito et al. reference, when the user inputs a request to view multimedia, the system refers to the video data index 13, to determine the proper bit rate. The "video index information defines a plurality of settings for the transfer bit rate of video data and indicates which data included in the original video data the video server should transfer to the client when setting the transfer bit rate to one of the plurality of settings. Furthermore, the video data assembler extracts data from the original video data by referring to the video data index information so as to set the transfer bit rate to one of the plurality of settings" (Col 3, Lines 12-20). It is inherent that the server uses identification data to identify the proper "template".

In regard to claim 20, the Ito et al. reference discloses a system for delivering video data with a variable transfer rate and buffering so as to ensure the continuity of the data received by the "multimedia node" or client. The reference fails to explicitly disclose the use of serial numbers for identification of multimedia content as claimed. However, the examiner gives OFFICIAL NOTICE that it is notoriously well known in the art to use serial numbers for identification so as to allow multimedia content to be identified. Consequently, it would have been clearly obvious to one of ordinary skill in the art to implement the Ito et al. reference with serial numbers identification of multimedia content for so as to allow multimedia content to be identified.

In regard to claim 21, with respect to the Ito et al. reference, "In FIG. 5, the client 2 outputs a request for transfer of video data to the video server 1. When the video server receives the transfer request from the client, the video server delivers a constant amount of data within a certain time in accordance with the transfer bit rate of video

data so as to transfer the video data requested by the client through the video data delivering unit 15, in steps F61 and F62. The video server, in step F63, starts to measure a load L_n imposed on the network at constant intervals T_1 by means of the network load sensor 17 just after transfers of video data are started. Then, the video server compares a measured value L_n of the network load to a reference value L_1, which is the maximum of the network load that cannot be exceeded in order to maintain the current transfer bit rate" (Col 7, Lines 44-57). The bit rate is adjusted in response to the load on the network. Therefore, the bit rate is adjusted when another client or node request video data.

In regard to claim 22, the Humpleman et al. reference teaches the use of a digital video device for processing multimedia data from a digital video disk. "A digital video device ("DVD") 108 is also connected to the exemplary home network 100. The DVD 108 can be used to display digitally encoded videos on a home television" (Col 6, Lines 7-10). Also, "As depicted in FIG. 1, DTV 102, DVCR 110, DVD 108, DSS-NIU 104 and security system 120 represent home devices that are currently connected to the home network 100. A client-server relationship exists among the attached devices, with the DTV 102 typically behaving as the client and home devices DVCR 110, DVD 108, DSS-NIU 104 and security system 120 behaving as servers." (Col 6, Lines 58-64).

In regard to claim 23, with respect to the Ito et al. reference, the system comprises an input buffer at the "node" so as to account for changes in the transfer bit rate such as a "spike". "Reference numeral 117 denotes a network load sensor for detecting a load imposed on a network 103, and 121 denotes a precharge buffer, which

is a component of the client 102, for absorbing changes in the transfer bit rate of video data delivered by the video server 101 so as to prevent video data transferring services provided by the video server 101 from being interrupted." (Col 9, Lines 36-43).

In regard to claim 24, with respect to the Ito et al. reference, "In FIG. 5, the client 2 outputs a request for transfer of video data to the video server 1. When the video server receives the transfer request from the client, the video server delivers a constant amount of data within a certain time in accordance with the transfer bit rate of video data so as to transfer the video data requested by the client through the video data delivering unit 15, in steps F61 and F62. The video server, in step F63, starts to measure a load L_n imposed on the network at constant intervals T_1 by means of the network load sensor 17 just after transfers of video data are started. Then, the video server compares a measured value L_n of the network load to a reference value L_1, which is the maximum of the network load that cannot be exceeded in order to maintain the current transfer bit rate" (Col 7, Lines 44-57). The bit rate is adjusted in response to the load on the network. Therefor, the bit rate is adjusted when another client or node request video data. Also, there is an input buffer at the "node" so as to account for changes in the transfer bit rate such as a "spike". "Reference numeral 117 denotes a network load sensor for detecting a load imposed on a network 103, and 121 denotes a precharge buffer, which is a component of the client 102, for absorbing changes in the transfer bit rate of video data delivered by the video server 101 so as to prevent video data transferring services provided by the video server 101 from being interrupted." (Col 9, Lines 36-43).

In regard to claim 25 and 26, with respect to the Ito et al. reference, the bit rate to the buffer is maintained until the load on the network is increased. "When the video server 101 receives the transfer request from the client, the video server transfers the video data requested by the client 102 to the client. The client 102 stores the video data delivered by the video server in the precharge buffer 121, and then starts to replay the video data. After that, the client continues to store video data received in the precharge buffer and read the video data to be replayed from the precharge buffer. Thus, even though transfer of video data from the video server is delayed, the client can maintain the continuity in video replay by absorbing changes in the transfer bit rate of video data by utilizing video data stored in the precharge buffer. The network load sensor 117 starts to measure a load L_n imposed on the network at constant intervals T_1 just after transfers of video data are started. Then, the network load sensor 117 compares the measured network load L.sub.n to a reference value L_d. If the measured value L_n exceeds the reference value L_d, the client 102 sends a request to reduce the transfer bit rate to the video server 101. When the video server 101 receives the request to change the bit rate, the video data assembler 114 extracts pictures from the video data 112 in accordance with the video data index 113, modifies the header information, and reassembles the extracted data to create video data to be transferred at a bit rate which is reduced from the previous bit rate by one level from the video data 12. Then, the video server delivers the video data" (Col 9, Lines 45-67; Col 10, Lines 1-11).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows.

- The Fitzgerald et al. (US Pat No 6,611,503) reference discloses a method and apparatus for multimedia conferencing with dynamic bandwidth allocation.
- The Humpleman (US Pat No 6,188,397) reference discloses a system with set-top electronics and network interface unit arrangement.
- The Adams (US Pat No 6,044,396) reference discloses a method and apparatus for utilizing the available bit rate in a constrained variable bit rate channel.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Manning whose telephone number is 703-305-0345. The examiner can normally be reached on M-F: 7:30 - 5:00 (off every other Wednesday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W Miller can be reached on 703-305-4795. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-9695 for regular communications and 703-746-9695 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is (703) 308-HELP.

JM
November 17, 2003

HAI TRAN
PATENT EXAMINER